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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,342	05/19/2004	Christopher Scott Thomas	1949D.PKG	6723

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09/19/2006

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EXAMINER

AFTERGUT, JEFF H

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/849,342

Applicant(s)

THOMAS ET AL.

Examiner

Jeff H. Aftergut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5-19-04</u> . | 6) <input type="checkbox"/> Other: ____ |

Priority

1. It is noted that this application appears to claim subject matter disclosed in prior Application No. 09/927586, filed 8-10-2001. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be

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accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent 2002-28995.

It should be noted at the outset that this rejection appears only because applicant is not claiming the benefit of the earlier application. The applicant is advised as discussed above that a petition may be necessary in order to claim the same. Since the priority to the earlier application has not been claimed, applicant is advised that the effective filing date of the application is the filing date of this application (5-19-04) and that Japanese Patent '995 (publication date 1-29-02) is available as prior art under 35 USC 102(b).

Japanese Patent '995 suggested that those skilled in the art at the time the invention was made would have incorporated a radio frequency heating of a paperboard material and a water based adhesive material in the formation of a paperboard tube or core wherein the tube or core was formed by winding the material about a mandrel and bonding the plies together. With respect to claim 2, the reference suggested a single ply tube. With respect to claim 3, note that the system was equipped to apply plural sheet of paper to the mandrel as well. Regarding claims 4-8, the reference clearly formed a core tube for a purpose such as for consumer food or for industrial uses and one skilled in the art would have understood that the intended use of the paper tube did not materially affect the process by which the tube was made. Regarding claim 10, note that the intended use of the tube did not materially affect the process by which the tube was made and thus the claim is deemed to be satisfied by the reference.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Drenning et al.

The admitted prior art on page 1 of the specification stated that paper tubes for use as winding cores, composite cans or tubes for packaged goods, concrete forms, etc. were generally formed from two or more plies of paper fed in either sheet or web form, adhesive is applied to the same between the plies, and the adhesive coated material is wound about a stationary mandrel. The paper webs or sheets are wound about the mandrel to form the paper tubes which are pulled off the mandrel with feeding and compression belts and the wound tubes are cut downstream of the mandrel. The admitted prior art additionally expressed that a rate-limiting step in the manufacturing operation was the adhesive which in North America is almost exclusively "waterborne adhesives". The admitted prior art therefore admitted that it was known to have a tube formed from either single or multiple plies of paperboard or paper wherein the paper or paperboard materials were secured together with a water based adhesive material. The admitted prior art suggested that in order to increase the rate at which the tubes were capable of being produced it was known to set the adhesive with various heating mechanisms which included hot air, heater elements, hot presses, heat lamps, infrared

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heaters, or microwave heaters. The admitted prior art additionally stated that the known heating mechanisms used to dry the water based adhesive which operated at high speed had several problems including the need to heat the paperboard material in order to heat the adhesive. This resulted in a variance in the moisture content of the paperboard as well as possible damaging to the paperboard itself. Applicant additionally stated that heating in this manner was not highly efficient.

Drenning et al, in a process of making a paperboard product (corrugated cardboard) suggested that it was known at the time the invention was made to employ an aqueous based adhesive binder material (starch) to join two layers of the paperboard material together. The reference suggested that instead of employing a heating mechanism which heated the paper material (which would have resulted in the removal of moisture from the paper in an uneven manner and later resulted in warpage of the finished assembly because of the equilibrating of the moisture after binding as well as possible damage to the paper material itself from the high heat necessary to operate a high speed) it was known at the time the invention was made to employ radio frequency heating (dielectric heating) of the adhesive directly to join the materials together where the water was removed via the dielectric heating. The applicant is more specifically referred to column 1, line 26-column 2, line 26, column 2, lines 39-column 3, line 42, column 4, line 43-column 5, line 38, column 6, lines 41-column 7, line 18 (in particular lines 63, 68-71 of column 6 and lines 11-15 of column 7) and column 8, lines 22-41 and in particular lines 29-32. Because it would have facilitated the formation of a bond in paperboard with a water based adhesive by drying the adhesive in a manner which did

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not adversely effect the paper (to warp the same or to damage the paper itself) as suggested by Drenning et al in the wound paperboard containers of the admitted prior art where the paperboard was glued with a water based adhesive wherein the adhesive was dried.

Regarding claim 3, the applicant admitted that two or more plies would have been wound to make the tube. Regarding claims 4-6, 8, and 10, the applicant has admitted that the tubes were known for packaging goods as well as for concrete forms. It is not seen how what the tube was used for materially affected the process of making the product. The process used to make the product whether a food container or a concrete column forming tube were suggested by the prior art. Regarding claim 7, the reference to the admitted prior art clearly suggested a tubular shape for the containers. Regarding claim 9, the admitted prior art suggested that one skilled in the art would have applied adhesive to the ply material followed by winding the same and cutting to length. The reference to Drenning suggested that those skilled in the art would have exposed the assembled plies to radio frequency heating once assembled (note that the reference suggested that one exposed the assembled plies of paper to make the cardboard after assembly to the RF field) in order to set the adhesive material without adversely affecting the end product (scorching and/or warpage in the finished assembly). Regarding claim 11, note that the admitted prior art suggested two plies or greater and one skilled in the art would have selected the desired number of plies as a function of the strength and/or rigidity required of the finished assembly (where such

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certainly included 10-30 plies for a concrete form). Additionally the applicant admitted that for industrial tubing such tubing typically included 10-20 plies of material.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 5 further taken with Lennon et al.

The applicant is referred to paragraph 5 above for a complete discussion of the admitted prior art and Drenning et al (wherein one skilled in the art would have applied rf heating to dry the adhesive in the paperboard tubes of the admitted prior art). The reference to the admitted prior art did not expressly state that one skilled in the art would have formed to paperboard tubes from a single ply of paperboard material. however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the tube from a single ply of paper material in order to provide a tube which was less expensive for consumer products which were subsequently wasted (like a toilet tissue tube which is disposed of by the consumer after use) as evidenced by Lennon et al, see column 1, lines 47-59, column 3, lines 45-67, for example. It should be noted that in Lennon the tubes were formed by helically winding with a belt to pull the tube from the mandrel. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make a single walled paperboard tube in order to reduce the costs associated with the same in the manufacture of consumer goods which were disposable as suggested by Lennon et al in the manufacture of paperboard containers as set forth above in paragraph 5 in order to reduce the manufacturing costs of disposable paperboard tubes.

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7. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 5 further taken with either one of Howard et al or Bacon et al.

While the references as set forth above suggested that those skilled in the art would have formed concrete forming tubes from a wound paper assembly (the admitted prior art), to further support this conclusion, the references to Bacon et al and Howard et al are cited. The references to either one of Bacon or Howard suggested that those skilled in the art would have known to employ 10 or more plies to form a concrete forming tube from paperboard plies. More specifically, Bacon suggested that there be provided 3 inner plies and 5 or more outer plies where the number of plies would have been greater for larger diameter pipes. The reference to Howard depicts the use of 8 plies to make the wound tube for concrete forming, however the reference suggested that a greater number of plies would have been possible dependent upon the requirements for the concrete forming tube. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ multiple plies to manufacture a concrete forming tube wherein the number of plies included more than 10 as envisioned by either one of Bacon or Howard in the process of making a wound tube for a concrete forming operation as taught above in paragraph 5.

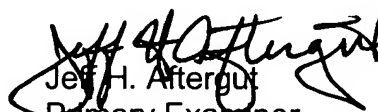
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
September 14, 2006